

Remark

Applicant respectfully requests reconsideration of this application as amended. Claims 1-2, 10, 12, 16 and 18 have been amended. Claims 4, 13 and 19 have been cancelled. Therefore, claims 1-3, 5-12, 14-18, 20-24 are present for examination.

35 U.S.C. §102 Rejection

Tanguay

The Examiner has rejected claims 1-4, 10-13 and 16-19 under 35 U.S.C. §102 (b) as being anticipated by Tanguay, U.S. Patent No. 5,946,488 ("Tanguay"). The Examiner suggests that Tanguay shows writing an original macro call if the macro is not a specific type and writing original code based on user input, if for example the macro is of a specific type, referring to Column 4, 35-47, 52-54. This section of Tanguay describes a selective code viewer in which the source code is marked to indicate which parts can be expanded or contracted. The code viewer expands or contracts the source code according to user input.

Claim 1, as amended, recites, "writing expanded macro tokens to an output file if said macro is of said specific type of macro; and writing an original macro call to said output file if said macro is not said specific type of macro." This goes beyond the user selection of Tanguay in which the user may select specific macros for expansion or not. There is nothing in Tanguay to suggest that the user may select a specific type of macro. Claims 10 and 16 contain similar limitations.

35 U.S.C. §103 Rejection

Tanguay in view of Beausang

The Examiner has rejected claims 5-9, 14-15 and 20-24 under 35 U.S.C. §103 (a) as being unpatentable over Tanguay in view of Beausang et al., U.S. Patent No. 5,903,466 ("Beausang").

The Examiner suggests that Beausang shows the insertion or expansion of scan cells or macros.

After a close reading of Beausang, Applicant submits that while Beausang discusses scan insertion at one of three tiers of its optimization process, neither expansion nor macros is mentioned anywhere in the text. The expansion of macros related to scan is nowhere suggested in either reference.

Claim 6 goes beyond merely scan insertion and scan macros. Claim 6, as dependent on Claim 1 relates to writing expanded scan macro tokens to an output file and writing original macro calls for macros other than scan to the output file. Even if it were possible to manually manipulate Tanguay to achieve such a result, there is no suggestion in Tanguay that the system be applied to HDL that includes scan macros nor that scan macros be systematically handled differently from any other macros. Accordingly, Applicant submits that the present invention is novel and nonobvious over the references. Claims 15 and 21 contain similar limitations.

Claim 7 includes creating a token stream based on the HDL representation that includes multifaceted tokens. The multifaceted tokens can be hidden from or made visible to a subsequent parsing process. They can be hidden by being marked as hidden and they can be made visible by expanding the plurality of macro definitions. Claim 7 further includes a scan inserted HDL file containing expanded versions of the macro definitions which relate to scan insertion but that omits expanded versions of those that do not relate to scan insertion. Claim 22 contains similar recitations.

Tanguay, on the other hand does not relate to multifaceted tokens but only to a code viewer that allows macros to be expanded by the user. In Beausang, there are various compile processes but no multifaceted tokens that allow scan macros to be made visible while other macros are made hidden. Accordingly, Claims 7 and 22 as well as the claims that depend therefrom are believed to be allowable over the references.

Conclusion

Applicant respectfully submits that the rejections have been overcome by the amendment and remark, and that the claims as amended are now in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the claims as amended be allowed.

Invitation for a Telephone Interview

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.


Request for an Extension of Time

Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension. Charge our Deposit Account.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
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